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BAT SCOPING & BAT PRESENCE / ABSENCE SURVEY

At

North End Garage

Gerrards Lane
Halewood
Liverpool
Merseyside
L26 5QA

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A handwritten signature in black ink, appearing to read 'Toby Hart', is positioned below the 'Approved by:' line.

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EXECUTIVE SUMMARY

A bat scoping survey including internal and external building inspections and bat presence / absence survey were undertaken at North End Garage, Halewood, Merseyside by United Environmental Services (UES) Ltd in September 2020.

The objective of these surveys was to establish whether or not bats are using the buildings on site to roost, and if so to assess the type and importance of roosts in order to inform the planning process. The surveys were carried out to recognised guidelines, timings and weather conditions, with particular reference to Natural England and Bat Conservation Trust (BCT) publications. The development proposals include the continued construction of the existing buildings on site (Buildings 1 & 2) and additional construction works to result in a total of six residential properties with associated gardens, parking areas and garages. The mobile cabin (Building 3) will be removed from site.

The habitats on site are of low quality for foraging and commuting bats. However, the areas surrounding North End Garage provide moderate quality habitat for bats. The presence of green space in the local area, including deciduous woodlands and agricultural fields lined with hedgerows, will provide an array of food sources and commuting opportunities, whilst roosting opportunities are also of a higher quality due to the number of mature trees and residential buildings. Connectivity is also of high quality in the landscape to the north, east and south-east due to the presence of stands of woodland and numerous treelines and hedgerows with minimal lighting.

As part of the bat scoping survey, all buildings on site were subject to a full internal and external inspection to look for field signs that would indicate use the buildings by bats and to assess the suitability of the buildings to support roosting bats. Due to a lack of potential roosting features Buildings 2 and 3 were assessed as having negligible potential to support roosting bats. However, Building 1 was assessed as having low potential to support roosting bats due to the presence of potential bat access points into the building and a number of internal potential roosting features (PRFs) such as cavities in between the woodwork. No evidence of roosting bats was observed during the internal and external inspections.

Common pipistrelle *Pipistrellus pipistrellus* was the only species of bat recorded during the bat presence / absence survey. The level of activity was moderate but was limited to low numbers of bats foraging and commuting along the scrub and tree line that demarcate the eastern and northern site boundaries.

No bats were found to be roosting within the buildings on site during the presence / absence survey and no evidence of roosting bats was observed during the scoping survey. Therefore, no further survey or mitigation work is required for the development to proceed, with regards to bats.

Due to the potential presence of breeding birds within Building 1 at the time of the development, it is recommended that any demolition works or works to seal the buildings (e.g. the installation of doors and windows) take place outside of the breeding bird season and should not be undertaken from March to August inclusive. If this is not possible and works need to take place during this period, a breeding bird nest check should be undertaken immediately prior to the commencement of works by a suitably experienced ecologist, and an ecological clerk of works appointed if considered necessary.



This report should be read in conjunction with appendices 1 to 5, which provide visual representations of the survey results and statutory and planning context.



1 INTRODUCTION

1.1 Author, surveyors and qualifications

This report is compiled and written by Daniel Smith BSc MScRes, UES Graduate Ecologist. Surveyors include:

- Paul Cassidy ACIEEM, UES Sub-contractor. Paul is licensed by Natural England to disturb, take and handle all species of bats under licence number 2017-27610-CLS-CLS (level 2).
- Tom Kenwright BSc MSc, UES Ecologist
- James Stubbs, UES Sub-contractor

All surveyors have the knowledge, skills and experience identified within CIEEM's "Competencies for Species Survey: Bats" (2013) or were under the supervision of a surveyor with the required competencies.

1.2 Survey objectives

UES was commissioned in September 2020 to conduct site surveys which include the following activities:

- Conduct internal and external building inspections to look for field signs of bats
- Confirm bat presence or likely absence by conducting a subsequent emergence survey of Building 1
- Assess the type and importance of the roost(s), if present
- Recommend appropriate mitigation and compensation, if applicable

1.3 Proposed development

The development proposals include the continued construction of the existing buildings on site (Buildings 1 & 2) and additional construction works to result in a total of six residential properties with associated gardens, parking areas and garages. The mobile cabin (Building 3) will be removed from site.

1.4 Structure of the report

This report sets out the methodology, results, and recommendations in relation to a specific bat survey. Recommendations are in line with statutory legislation and planning policy objectives.

The report should be read in conjunction with appendices 1 to 5, which give visual representations of the survey results.



2 METHODOLOGY

2.1 General

All surveys were carried out to recognised guidelines, timings and weather conditions, with particular reference to Natural England and BCT publications (see references for further information).

The habitats on site and in the surrounding area were assessed during a walkover survey and through studying aerial photographs, in order to gauge their suitability to support roosting, foraging and commuting bats.

2.2 Building inspections

The buildings on site were searched both externally and internally for bat presence and features associated with bat activity, as detailed in BCT guidance (Collins, 2016). The inspection of the buildings was undertaken by Paul Cassidy & Tom Kenwright on 28th September 2020.

2.2.1 External inspection

The external inspections of the buildings were carried out from ground level using binoculars, and also using ladders and an endoscope to investigate suitable gaps. The objective of the survey was to find and record any signs of bat use, for example:

- Bat droppings
- Feeding remains
- Grease staining / urine marks
- Corpses or skeletons

The bat signs listed above are visible from the outside of a building. The following areas were searched, where present:

- | | |
|---------------------------|---|
| • Roof and ridge tiles | • Gaps under felt |
| • Lead flashing | • Cracks / holes in woodwork or behind cladding |
| • Eaves | • Gaps in brickwork and mortar |
| • Boxed soffits | • Air bricks |
| • Fascia and barge boards | • Grills |
| • Windowsills and panes | • Vents |
| • Walls | |

2.2.2 Internal inspection

The internal inspections covered all of the accessible rooms and roof spaces within the buildings.

Bats regularly utilise specific areas within roof spaces, which were searched for any field signs of bats using high-powered torches and an endoscope, where considered necessary by the licenced ecologist. The following features were searched, where present:



- Roof beams and junctions
- Gaps under felt
- Dividing walls
- Chimney breasts
- Gaps in brickwork and mortar
- Cracks / holes in woodwork
- Floor or other surfaces on which droppings could accumulate

2.3 Emergence survey

Potential roost access points were identified during the building inspections. These points were covered by a surveyor during the dusk emergence period.

Bat echolocation, flight and habitat characteristics were recorded where possible, in order to determine the species. The level and type of bat activity was also recorded to establish how bats are using the site.

2.3.1 Equipment

BATLOGGER M bat detectors and recorders were used during the survey. This device records bat echolocation calls across the full spectrum, with a sensitivity range of 10 – 150 kHz. The integrated heterodyne live monitoring also allows the observer to hear the echolocation calls in real time, with automatic tuning. The recordings are individually time/date, GPS and temperature stamped, and are of high enough quality to produce time expansion quality sonograms.

An Anabat Walkabout bat detector was used during the surveys. This allowed the observer to hear bat echolocation calls and see the sonograms in real time, aiding identification. All registrations were automatically recorded onto a memory card and time/date stamped. The device can record and display both zero crossing and full spectrum bat echolocation calls and has a built-in GPS and mapping system.

2.3.2 Weather conditions

Table 1 - Weather conditions and survey timings

DATE	SURVEY TYPE	TIMINGS	SUNSET / SUNRISE	TEMP.	WIND	RAIN	CLOUD COVER
28/09/20	Emergence	18:39 – 20:24	18:54	18°C	Still	Dry	90%

2.4 Survey limitations

The survey was undertaken in September when bats are beginning to disperse to their winter roosts. However, a moderate level of bat activity was recorded throughout the survey and a comprehensive internal and external inspection of the buildings could still be carried out. Given that this assessment occurred in September, evidence of roosting bats from the summer would



still be in situ in internal and sheltered external locations. Additionally, due to the unfinished construction of Building 1, the potential roosting features are all located within the internal areas of building and are of very limited suitability. All PRFs could be fully viewed and inspected as part of the bat scoping survey and mostly superficial. As such, this is not considered to have significantly affected the results of this survey and the results are still considered to be valid.



3 RESULTS

3.1 Habitat assessment

North End Garage is located in Halewood, Merseyside. The habitats on site mostly offer negligible to low quality foraging and commuting opportunities for bats and include a partially constructed residential dwelling and garage, a mobile cabin and a large areas of hardstanding with sporadic ephemeral / short perennial vegetation. Areas of scrub and scattered trees present at the site boundaries provide higher quality habitat however these habitats mostly lie off site and will largely be retained as part of the development proposals.

To the west and south-west, the immediate surrounding area is composed of urban residential areas divided by a network of well-lit roads. This urban area will provide poor quality foraging and commuting habitats for bats. However, agricultural fields divided by unlit hedgerows lie to the north, east and south-east. There is also a small pocket of deciduous woodland and scrub that is connected to the northern site boundary. These habitats will provide higher quality foraging, commuting and roosting opportunities for bats in the local area.

In the wider surrounding area, the habitats are similar in composition, including large urban areas, especially in the north, west and south. Agricultural fields are more prevalent in the east. There are more small pockets of deciduous woodlands which lie approximately 800m to the south-east. Lee Park Golf Club is also located approximately north, which comprises tree lines, hedgerows, and ponds.

3.2 Building inspections

3.2.1 External inspection

For the purposes of the report, the buildings have been numbered 1 – 3. A site plan of the buildings is included at Appendix 1.

Building 1 is the frame of a partly constructed two-storey residential dwelling with a pitched roof. The building is entirely constructed from wood and is currently lacking brickwork and roof tiles. Scaffolding is present around the building and sheets of waterproof material currently line the roof and walls. No windows or doors have been fitted and large cavities are present in their place, which provide potential bat access points into the building. Due to its construction, no external PRFs were observed within the building.

Building 2 is a single-storey double garage with a pitched roof. The walls have been constructed from brick and has intact roof and ridge tiles. The plastic verge capping and fascias are all in good condition, although a small number of large gaps are present at the ends of the roof capping (See Appendix 3 – Photographs, Photograph 6). These features are not considered to provide a suitable roosting feature as they do not lead to an enclosed cavity that could be used by roosting bats. No door is present, allowing access into the internal area. The building is in good condition and no external PRFs were observed.

Building 3 is a small single-storey portable work cabin with a flat roof. The entire building is constructed from metal and plastic and the roof is lined with bitumen felt. The building is in good condition and no external PRFs were observed.

No bat droppings or other field signs were found during the external inspections.



3.2.2 Internal inspection

Internally within **Building 1**, the bare wooden walls are visible and the underside of the roof is lined with wooden panels. No loft void is present, and the third floor is open from floor to ceiling. No insulation is present within the building and the internal areas are cold, draughty, and well-lit during the day. A few small and mostly superficial cavities are present between the woodwork (Photograph 11). These features are mostly superficial and are very exposed, further reducing their suitability for roosting bats. These features could be fully inspected during the survey and no evidence of roosting bats was observed.

Anecdotal evidence suggests swallows *Hirundo rustica* use the partly constructed building during the summer. No evidence of nesting activity was observed within the building, however evidence of bird activity was evident in the form of a small number of scattered droppings (Photograph 12).

Internally within **Building 2**, the bare breezeblock walls are visible, and the underside of the roof is lined with breathable roofing membrane. The internal areas are cold and draughty and are well lit during the day. The internal areas of the building are in good condition and no cavities or crevices that would provide suitable PRFs were observed within the building. No evidence of nesting birds or roosting bats was observed.

Building 3 has no loft space and is not suitable to support roosting bats due to the lack of access points, lack of PRFs and high levels of light within the building. No evidence of nesting birds or roosting bats was observed within the building.

No bat droppings or other field signs were found during the internal inspections.

3.3 Activity summary

Table 2 – Bat activity summary

DATE	SURVEY TYPE	SPECIES	NOTES
28/09/20	Emergence	Common pipistrelle	Moderate levels of common pipistrelles activity was recorded throughout the survey with a low number of individuals foraging and socialising along the northern and eastern site boundaries.



4 EVALUATION AND RECOMMENDATIONS

4.1 Evaluation of results

The habitats on site are of low quality for foraging and commuting bats. However, the areas surrounding North End Garage provide moderate quality habitat for bats. The presence of green space in the local area, including deciduous woodlands and agricultural fields lined with hedgerows, will provide an array of food sources and commuting opportunities, whilst roosting opportunities are also of a higher quality due to the number of mature trees and residential buildings. Connectivity is also of high quality in the landscape to the north, east and south-east due to the presence of stands of woodland and numerous treelines and hedgerows with minimal lighting.

Building 1 on site presents a few poor-quality PRFs which could be used by individual bats on a transitional basis and was assessed as having low potential to support roosting bats. Having said this, no field signs of bats, such as droppings, were found during the building inspections. Buildings 2 and 3 were assessed to have a negligible potential to support roosting bats due to a lack of PRFs.

Common pipistrelle was the only species of bat recorded during the bat presence / absence survey. The level of activity was moderate but was limited to low numbers of bats foraging and commuting along the scrub and tree line that demarcate the eastern and northern site boundaries.

No bats were recorded roosting in the buildings during the bat presence / absence survey.

4.2 Mitigation and compensation measures

4.2.1 Bats

As no bats were found to be using the buildings on site to roost, no further mitigation or compensation measures are required with regards to bats.

4.2.2 Birds

Due to the potential presence of breeding birds in Building 1, it is recommended that any demolition works and the initial construction works to seal the building (e.g. the installation of doors and windows) are to take place outside of the breeding bird season and should not be undertaken from March to August inclusive. If this is not possible, a breeding bird nest survey should be undertaken prior to the commencement of works by a suitably experienced ecologist and an ecological clerk of works appointed if considered necessary.



5 CONCLUSION

North End Garage is situated in an area that presents moderate quality habitat for foraging, roosting and commuting bats. Buildings 2 and 3 were assessed to have a negligible potential to support roosting bats due to a lack of PRFs. Building 1 on site presents a few poor-quality PRFs which could be used by individual bats on a transitional basis and was assessed as having low potential to support roosting bats.

No field signs of bats, such as droppings, were found during the building inspections. Furthermore, no bats were recorded roosting in the buildings on site during the bat presence / absence survey.

As no bats were found to be using the buildings on site to roost, no further mitigation or compensation measures are required with regards to bats.

Due to the potential presence of nesting birds in Building 1, works on site will need to be mindful of breeding bird legislation, as detailed in section 4.2.2.



6 REFERENCES

Chartered Institute of Ecology and Environmental Management (2013). *Competencies for Species Survey: Bats*.

Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. (3rd ed.) The Bat Conservation Trust, London.

Ministry of Housing Communities and Local Government (2019). *National Planning Policy Framework*.

Mitchell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. English Nature.

Mitchell-Jones, A.J. & McLeish, A.P. (2004). *The Bat Workers Manual*. (3rd ed.) JNCC



APPENDICES

Appendix 1 – Site plan



North End Garage, Halewood

Site Plan

-  Development boundary
-  Building
-  Bat flight path





Appendix 2 – Aerial photographs



North End Garage, Halewood

Close aerial photograph

— Survey boundary





North End Garage, Halewood

Wide aerial photograph

 Site location





Appendix 3 – Photographs



Photograph 1 – Looking north-east across the site towards the south-western aspects of the buildings.



Photograph 2 – The north-eastern and north-western aspect of Building 1.



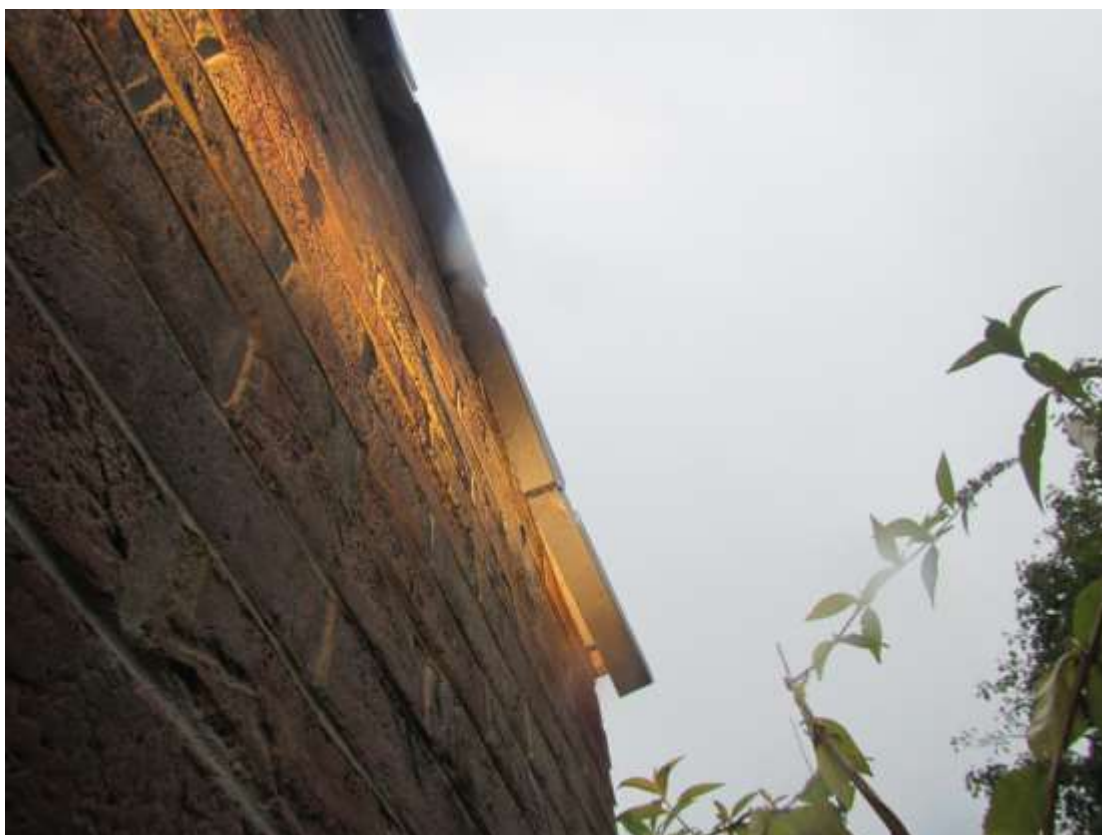
Photograph 3 – The south-eastern aspect of Building 1.



Photograph 4 – The south-western aspect of Building 2.



Photograph 5 – The north-western and south-western aspect of Building 2.



Photograph 6 – Superficial gaps behind the plastic fascias on Building 2.



Photograph 7 – The north-western and north-eastern aspect of Building 3.



Photograph 8 – Internal area of Building 1.



Photograph 9 – Within the third floor of Building 1, showing no glass in the windows.



Photograph 10 – Looking at the underside of roof within Building 1.



Photograph 11 – Superficial cavities in between the woodwork in Building 1.



Photograph 12 – Bird droppings found within Building 1.



Photograph 13 – Internal view of Building 2.



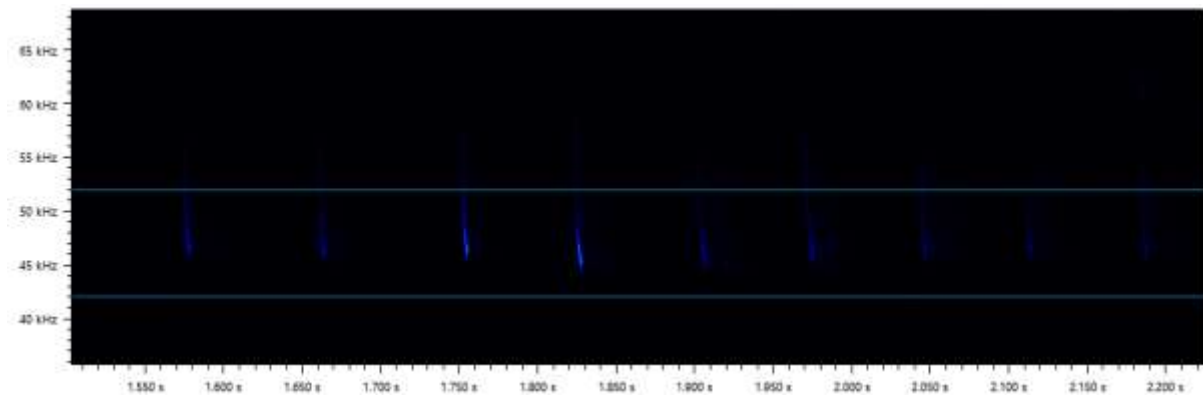
Photograph 14 – Showing the roof lining of Building 2.



Photograph 15 – Inside of Building 3.



Appendix 4 – Results



Sonogram 1 – Common pipistrelle commuting over site at 19:19 on the 28th September 2020.



Appendix 5 – Statutory and planning context

Ecological assessments

Ecological assessments play an important part within the planning context; they include an initial assessment which highlights any specific interests of a site. From the initial site assessment, the surveyor assesses the suitability of habitats within the site to support protected species and makes recommendations for further survey works if required. The following paragraphs provide a brief interpretation of the legislative protection that is relevant to the findings of this report.

Bats

In the United Kingdom, all species of bat and their roosts are afforded full protection under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (known as the “Habitats Regulations”). The Wildlife and Countryside Act is the domestic implementation of the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) and was amended by the Countryside and Rights of Way Act 2000. This makes it an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture a bat
- Deliberately, intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection
- Deliberately, intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection (even if the bat is not present at the time)
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead bat, any part of a bat or anything derived from a bat

Under UK law, a bat roost is *any structure or place which any wild [bat] ... uses for shelter or protection*. As bats often reuse the same roosts, legal opinion is that a roost is protected whether or not the bats are present at the time of the activity taking place.

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

If an activity is likely to result in any of the above offences, a licence can be applied for to derogate from the protection afforded. These licences must provide appropriate mitigation and are issued by Natural England.

A Natural England mitigation licence application requires a Mitigation Method Statement and, in many cases, a Reasoned Statement of Application. The Mitigation Method Statement contains details of the proposed mitigation works. The Reasoned Statement needs to provide a rational and reasoned justification as to why the proposed development meets the requirements of the Conservation (National Habitats & c.) regulations 1994, namely Regulations 44(2)(e), (f) or (g), and 44(3)(a).

The National Planning Policy Framework 2019 (NPPF) provides guidance on the interpretation of the law in relation to the natural environment and development.

The Natural Environment and Rural Communities (NERC) Act 2006 lists the following bat species as species of principle importance under Section 41:

- Barbastelle *Barbastella barbastellus*
- Bechstein's bat *Myotis bechsteinii*
- Noctule *Nyctalus noctula*
- Soprano pipistrelle *Pipistrellus pygmaeus*
- Brown long-eared bat *Plecotus auritus*
- Greater horseshoe *Rhinolophus ferrumequinum*
- Lesser horseshoe *Rhinolophus hipposideros*

Section 40 requires every public body in the exercising of its functions ‘have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity’ (all biodiversity and not just section 41 species and habitats); therefore making these bats a material consideration in the planning process and requiring a detailed ecological bat survey before planning permission can be granted.

Birds

All wild birds, their nests and young are protected throughout England and Wales by the Wildlife & Countryside Act 1981 (as amended). It is illegal to kill, injure or take any wild bird, or damage or destroy the nest or eggs of breeding birds. The legislation applies to all bird species, common and rare.

In addition to the protection afforded to all wild birds, more vulnerable species listed on Schedule 1 of the Act receive enhanced protection when breeding. Schedule 1 species, including their dependent young, are protected from intentional or reckless disturbance whilst at or near the nest, in addition to the protection afforded the more common species.

The NERC Act offers further protection to the nests of some species that regularly re-use their nests, even when the nests are not in use.

The leading governmental and non-governmental conservation organisations in the UK have reviewed the population status of 244 UK bird species. "Birds of Conservation Concern 4: the Red List for Birds" is the most recent publication summarising their findings. Three lists, Red, Amber and Green, have been produced based on the most up-to-date evidence available and criteria include conservation status at global and European levels and, within the UK: historical decline, trends in population and range, rarity, localised distribution and international importance. These lists are a valuable resource when considering conservation priorities.

Planning Policy

National Planning Guidance is issued in the form of the National Planning Policy Framework 2018 (NPPF). The most relevant section is 15: Conserving and enhancing the natural environment.

Key relevant principles stated in 15: Conserving and enhancing the natural environment are;

- 170.** Planning policies and decisions should contribute to and enhance the natural and local environment by:
- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
 - b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
 - c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
 - d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
 - e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
 - f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.
- 174.** To protect and enhance biodiversity and geodiversity, plans should:
- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity⁵⁶; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
 - b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

- 175.** When determining planning applications, local planning authorities should apply the following principles:
- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
 - b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
 - c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁵⁸ and a suitable compensation strategy exists; and
 - d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.